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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/835,673	04/16/2001	Wolfgang Buchalla	ARE0005	8209

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EXAMINER

WILSON, JOHN J

ART UNIT

PAPER NUMBER

3732

DATE MAILED: 09/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/835,673

Applicant(s)

BUCHALLA ET AL.

Examiner

John J. Wilson

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 April 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-30 is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.                      6) ☐ Other:

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1, 2, 7-9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Bianchetti (6095810). Bianchetti shows a housing 1, drill head 14, motor 2 and light source 11 that has a desired wavelength of 450-470 nm, column 2, lines 9-12. The shown structure is inherently capable of functioning to produce tooth luminescence. As to claim 2, see fiber optics 15. As to claim 8, see excavation means 10 and illumination guide means 15. All of the structure being shown, to use for excavating carious material is merely intended use that the shown structure is capable of performing.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bianchetti (6095810) in view of Schuss (4498868). Bianchetti does not show the use of a glass

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rod. Schuss teaches using a glass rod 45, Fig. 7, to provide light in a dental handpiece. It would be obvious to one of ordinary skill in the art to modify Bianchetti to include the use of a glass rod as shown by Schuss in order to make use of art known ways to provide light in dental handpieces.

Claim 4, 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bianchetti (6095810). Bianchetti does not show the specific wavelength, however, does show a range 450-470. The specific wavelength used is an obvious matter of choice in the degree of a known parameter to one of ordinary skill in the art.

Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bianchetti (6095810) in view of Meller (4642738). Bianchetti does not show a bulb. Meller shows using a bulb 40 to provide light in a dental handpiece. It would be obvious to one of ordinary skill in the art to modify Bianchetti to include the use of a bulb as shown by Meller in order to make use of art known ways to provide light in dental handpieces. Using the bulb to filter light that is emitted is well known in the art of making bulbs.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meller (4642738) in view of Lafond (EP 0113152). Meller shows a housing 20, drill head as shown and light source 40 through an opening in the housing as shown. Meller does not show a filter. Lafond shows a filter 60. It would be obvious to one of ordinary

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skill in the art to modify Meller to include a filter as shown by Lafond because the claimed elements are merely separate elements listed together, and as such, a listing of prior art showing the separate elements is proper and obvious. As to claim 14, the specific filtered wavelength is an obvious matter of choice in the degree of a known parameter to the skilled artisan.

Claims 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lafond (EP 0113152). Lafond shows projecting light at 40, observing at 50 and identifying the red-orange region as dental caries. Lafond also discloses the caries region is darker than the surrounding region. It is inherent that there will be an intermediate ring region there between. The step of identifying and the step of recognizing are steps requiring mental interpretation. Because mental interpretation may vary greatly depending on the interpreter, these steps are obvious matters of choice in the interpretation of sensed stimuli to one of ordinary skill in the art. As to claim 20, the specific filter used is an obvious matter of choice in the degree of a known parameter to the skilled artisan.

***Allowable Subject Matter***

Claims 22-30 are allowed.

***Drawings***

The drawings filed April 16, 2001 have been found to be acceptable by the examiner.

***Specification***

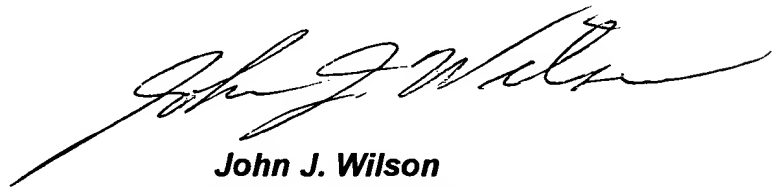
The disclosure is objected to because of the following informalities: On page 11, line 10, see "withing".

Appropriate correction is required.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Polaert et al (5894620) shows luminescence with a hand piece.

Any inquiry concerning this communication should be directed to John Wilson at telephone number (703) 308-2699.



**John J. Wilson  
Primary Examiner  
Art Unit 3732**

jjw  
September 4, 2002  
Fax (703) 308-2708  
Work Schedule: Monday through Friday, Flex Time